



<b>Certificate of Mailing By "U.S. Certified Mail" Under 37 C.F.R. 1.8</b>	
"CERTIFIED MAIL" Mailing Label Number: <u>7003 1010 0002 1352 0005</u> Date of Deposit: <u>2/24/04</u>	
I hereby certify that this paper and/or fee is being deposited with the United States Postal Service "CERTIFIED MAIL POST OFFICE TO ADDRESSEE" service under 37 C.F.R. 1.8 on the date indicated above and is addressed to the Commissioner For Patents, Alexandria, VA 22313-1450.	
Name: <u>Janti Lie</u>	 Signature
Signature Date <u>2/24/04</u>	

The Commissioner for Patents  
United States Patent and Trademark Office  
P. O. Box 1450  
Alexandria, VA 22313-1450

**ATTN: Mail Stop Patent Application**

Re: U.S. Utility Patent Application  
Appl. No. 10/776,146; Filed 2/10/2004  
For: **Optical Waveguide Grating Coupler With Varying Scatter Cross Sections**  
Inventor(s): **Gunn III, et al.**  
Docket No.: LUX-P020

Sir:

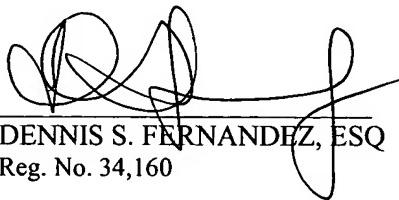
The following documents are forwarded herewith for action by the U.S. Patent and Trademark Office:

1. Information Disclosure Statement;
2. Form PTO/SB/08A
3. Form PTO/SB/08B with 9 reference(s); and
4. A return post card.

It is respectfully requested that the attached postcard be stamped with the receipt date of the above documents and returned to the addressee as soon as possible.

Respectfully submitted,

2/24/04  
Date

  
DENNIS S. FERNANDEZ, ESQ

Reg. No. 34,160

**CUSTOMER NO: 22877**  
**FERNANDEZ & ASSOCIATES, LLP**  
**PATENT ATTORNEYS**  
PO BOX D  
MENLO PARK, CA 94026-6204  
(650) 325-4999  
(650) 325-1203 FAX  
EMAIL: *iploft@iploft.com*



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): **Gunn III, et al.**

Docket No.: **LUX-P020**

Serial No.: **10/776,146**

Group Art Unit: **(Not yet assigned)**

Filed: **2/10/2004**

Examiner: **(Not yet assigned)**

Title: **Optical Waveguide Grating Coupler With Varying Scatter Cross Sections**

**INFORMATION DISCLOSURE STATEMENT**

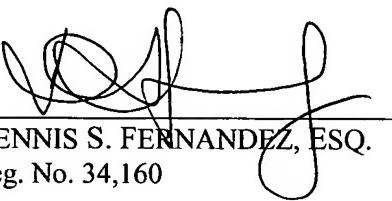
Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In keeping with the duty of candor and good faith owed to the Patent and Trademark Office, Applicants wish to bring the enclosed printed publications and U.S. patent references to the attention of the Examiner.

Applicant respectfully submits that Applicants' claimed invention is patentable over such references. Forms PTO/SB/08A and PTO/SB/08B listing these references are attached. It is understood the Office may find additionally relevant material in these or other references

Respectfully submitted,

  
DENNIS S. FERNANDEZ, ESQ.  
Reg. No. 34,160

\_\_\_\_\_  
Date

**CUSTOMER NO: 22877**  
**FERNANDEZ & ASSOCIATES, LLP**  
**PATENT ATTORNEYS**  
**PO BOX D**  
**MENLO PARK, CA 94026-6204**  
**PHONE: (650) 325-4999**  
**FAX: (650) 325-1203**  
**EMAIL: *iploft@iploft.com***



PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE  
A collection of information; class 0710, serial 0110, OMB control number

Substitute for form 1449/PTO

## **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

**(Use as many sheets as necessary)**

Sheet

1 of 2

**Complete if Known**

Application Number	10/776,146
Filing Date	2/10/2004
First Named Inventor	Gunn III, et al
Art Unit	Not Yet Assigned
Examiner Name	"
Attorney Docket Number	LUX-POLO

**U. S. PATENT DOCUMENTS**

## **FOREIGN PATENT DOCUMENTS**

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.<sup>1</sup> Applicant's unique citation designation number (optional).<sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04.<sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3).<sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.<sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible.<sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.  
Institute for form 1449/PTOINFORMATION DISCLOSURE  
STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet

2

of

2

## Complete if Known

Application Number	10/776,146
Filing Date	2/10/2004
First Named Inventor	Gunn III, et al
Art Unit	Not Yet Assigned
Examiner Name	
Attorney Docket Number	LUX - P020

## NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	1	"LOW LOSS NANOPHOTONIC WAVEGUIDES AND RING RESONATORS IN SILICON-ON-INSULATOR"; BEATS, ET AL	
	2	"LARGE-SCALE PRODUCTION TECHNIQUES FOR PHOTONIC NANOSTRUCTURES"; BOGAERTS, ET AL	
	3	"CMOS-COMPATIBLE PLANAR SILICON WAVEGUIDE-GRATING-COUPLER PHOTODETECTORS FABRICATED ON SILICON-ON-INSULATOR (SOI) SUBSTRATES"; S.M. CSUTAK, S. DAKSHINA-MURTHY &	
		JOE C. CAMPBELL; IEEE JOURNAL OF QUANTUM ELECTRONICS, VOL.38 NO. 5 MAY 2002	
	4.	"BURIED-OXIDE SILICON-ON-INSULATOR STRUCTURES II: WAVEGUIDE GRATING COUPLERS"; EMMONS, ET AL; IEEE JOURNAL OF QUANTUM ELECTRONICS, VOL.28 NO. 1 JANUARY 1992.	
	5	"INTEGRATED OPTICS FOR OPTICAL HEAD APPLICATIONS"; OCHIAI ET AL; ELECTRONICS LETTERS 18TH AUGUST 1994 VOL. 30 NO. 17, PAGE 1403-1404	
	6	"EFFECTS OF GRATING HEIGHTS ON HIGHLY EFFICIENT UNIBOND SOI WAVEGUIDE GRATING COUPLERS"; ANG, ET AL; IEEE PHOTONICS TECHNOLOGY LETTERS VOL.12 NO. 1 JAN 2000	
	7	"MODE MATCHING TECHNIQUE FOR HIGHLY EFFICIENT COUPLING BETWEEN DIELECTRIC WAVEGUIDES AND PLANAR PHOTONIC CRYSTAL CIRCUITS"; SANCHIS, ET AL	
	8	"BURIED-OXIDE SILICON-ON-INSULATOR STRUCTURES II: WAVEGUIDE GRATING COUPLERS"; EMMONS, ET AL; IEEE JOURNAL OF QUANTUM ELECTRONICS, VOL 28 NO.1 JANUARY 1992	
	9	"NON UNIFORM GRATING COUPLERS FOR COUPLING OF GAUSSIAN BEAMS TO COMPACT WAVEGUIDES"; WEST, ET AL; PUBLISHED IN THE INTEGRATED PHOTONICS RESEARCH TECHNICAL DIGEST 1994	

Examiner Signature	Date Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:  
Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.